

Testing the Electroweak Theory with multi-boson polarization measurements

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Experimental measurements of multiboson interactions serve as tests for the Standard Model (SM) electroweak sector and its mechanism of spontaneous symmetry breaking (EWSB). One direct avenue to probe this sector is through the study of weak boson polarizations, offering a direct insight into EWSB. As longitudinal polarization modes only exist for massive bosons, they are directly linked to the Higgs mechanism, which provides the W^\pm and Z bosons with their mass.

In this talk, we delve into the latest public results from ATLAS regarding multiboson measurements, shedding light on the intricacies of multiboson interactions, the experimental challenges and discuss their implications for our understanding of fundamental particle physics.

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